

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A method for providing an interface description for a service of a device or object in a computing system, wherein the method is implemented by at least one processor of the computing system, comprising:

creating a one to one mapping of each type in the device or object to an XML schema;
and

describing the one to one mapping with an extensible markup language (XML)-based Interface Description Language (IDL).

2. (Original) A method according to claim 1, wherein the XML-based IDL is Type Description Language (TDL).

3. (Previously Presented) A method according to claim 2, wherein said element of creating a one to one mapping comprises creating a one to one mapping from a programming construct to an XML schema for describing the programming construct.

4. (Original) A method according to claim 3, wherein the programming construct is one of a pointer programming construct, primitive type programming construct, struct programming construct, class programming construct, array programming construct, subtype programming construct, enumeration type programming construct, service reference construct and bit field programming construct.

5. (Previously Presented) A method according to claim 2, wherein said element of creating a one to one mapping comprises creating a one to one mapping from a constant value of complex type to an XML schema for describing the constant value of complex type.

6. (Previously Presented) A method according to claim 2, wherein said element of creating a one to one mapping comprises creating a one to one mapping from at least one of properties, methods and events of the type system to an XML schema for describing the at least one of properties, methods and events.
7. (Original) A method according to claim 3, wherein TDL supports inheritance of programming constructs.
8. (Previously Presented) A method according to claim 1, wherein the XML-based IDL is a wire format for message communications relating to the service between devices of the computing system.
9. (Previously Presented) A method according to claim 8, further comprising creating a one to one mapping from the wire format to the message communications.
10. (Previously Presented) A method according to claim 2, wherein TDL enables a transfer of a service reference across an application boundary.
11. (Original) A method according to claim 1, wherein the computing system is a peer to peer distributed computing environment.
12. (Original) A method according to claim 1, wherein the XML-based IDL is extendable to map additional constructs of a richer type system to an XML schema and vice versa.
13. (Original) A computer readable medium having stored thereon a plurality of computer-executable instructions for performing the method of claim 1.
14. (Canceled).
15. (Original) A computing device comprising means for performing the method of claim 1.

16. (Previously Presented) A tangibly embodied computer readable medium having stored thereon a plurality of computer-executable modules, the computer executable modules including at least one mechanism implemented by at least one processor of a computing system, the at least one mechanism comprising:

a mapping mechanism for describing a service of one of a device and object in a computing system with an extensible markup language (XML)-based Interface Description Language (IDL) that one to one maps each type of a particular type-based system to an XML schema and vice versa.

17. (Previously Presented) A computer readable medium according to claim 16, wherein the XML-based IDL is Type Description Language (TDL).

18. (Previously Presented) A computer readable medium according to claim 17, wherein TDL enables a one to one mapping from a programming construct to an XML schema for describing the programming construct.

19. (Original) A computer readable medium according to claim 18, wherein the programming construct is one of a pointer programming construct, primitive type programming construct, struct programming construct, class programming construct, array programming construct, subtype programming construct, enumeration type programming construct, service reference construct and bit field programming construct.

20. (Original) A computer readable medium according to claim 17, wherein TDL enables a one to one mapping from a constant value of complex type to an XML schema for describing the constant value of complex type and vice versa.

21. (Original) A computer readable medium according to claim 17, wherein TDL enables a one to one mapping from at least one of properties, methods and events of the type system to an XML schema for describing the at least one of properties, methods and events and vice versa.

22. (Original) A computer readable medium according to claim 18, wherein TDL supports inheritance of programming constructs.
23. (Previously Presented) A computer readable medium according to claim 16, wherein the XML-based IDL is a wire format of message communications relating to the service between devices of the computing system.
24. (Original) A computer readable medium according to claim 23, wherein the XML-based IDL enables a one to one mapping from the wire format to the message communications and vice versa.
25. (Previously Presented) A computer readable medium according to claim 17, wherein TDL enables a transfer of a service reference across an application boundary.
26. (Original) A computer readable medium according to claim 16, wherein the computing system is a peer to peer distributed computing environment.
27. (Original) A computer readable medium according to claim 16, wherein the mapping mechanism for the XML-based IDL is extendable to map additional constructs of a richer type system to an XML schema and vice versa.
28. (Canceled).
29. (Original) A computing device comprising means for carrying out the plurality of computer-executable instructions of the computer readable medium of claim 16.

30. (Previously Presented) A computing device, comprising:

computer-executable instructions tangibly embodied on a computer readable medium, the computer-executable instructions of the operating system including at least one mechanism implemented by at least one processor of a computing system, the at least one mechanism comprising:

a mapping mechanism for describing a service of one of a device and object in a computing system with an extensible markup language (XML)-based Interface Description Language (IDL) that one to one maps each type of a particular type-based system to an XML schema.

31. (Original) A computing device according to claim 30, wherein the XML-based IDL is Type Description Language (TDL).

32. (Previously Presented) A computing device according to claim 31, wherein TDL enables a one to one mapping from a programming construct to an XML schema for describing the programming construct.

33. (Original) A computing device according to claim 32, wherein the programming construct is one of a pointer programming construct, primitive type programming construct, struct programming construct, class programming construct, array programming construct, subtype programming construct, enumeration type programming construct, service reference construct and bit field programming construct.

34. (Previously Presented) A computing device according to claim 31, wherein TDL enables a one to one mapping from a constant value of complex type to an XML schema for describing the constant value of complex type.

35. (Previously Presented) A computing device according to claim 31, wherein TDL enables a one to one mapping from at least one of properties, methods and events of the type system to an XML schema for describing the at least one of properties, methods and events.

36. (Original) A computing device according to claim 32, wherein TDL supports inheritance of programming constructs.

37. (Previously Presented) A computing device according to claim 30, wherein the XML-based IDL is a wire format of message communications relating to the service between devices of the computing system.

38. (Previously Presented) A computing device according to claim 37, wherein the XML-based IDL enables a one to one mapping from the wire format to the message communications.

39. (Previously Presented) A computing device according to claim 31, wherein TDL enables a transfer of a service reference across an application boundary.

40. (Original) A computing device according to claim 30, wherein the computing system is a peer to peer distributed computing environment.

41. (Previously Presented) A computing device according to claim 30, wherein the mapping mechanism for the XML-based IDL is extendable to map additional constructs of a richer type system to an XML schema.